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# Environmental Education in Vietnam: A Case Study at Le Loi Elementary School

Emily Heck Heck

*SIT Graduate Institute - Study Abroad*

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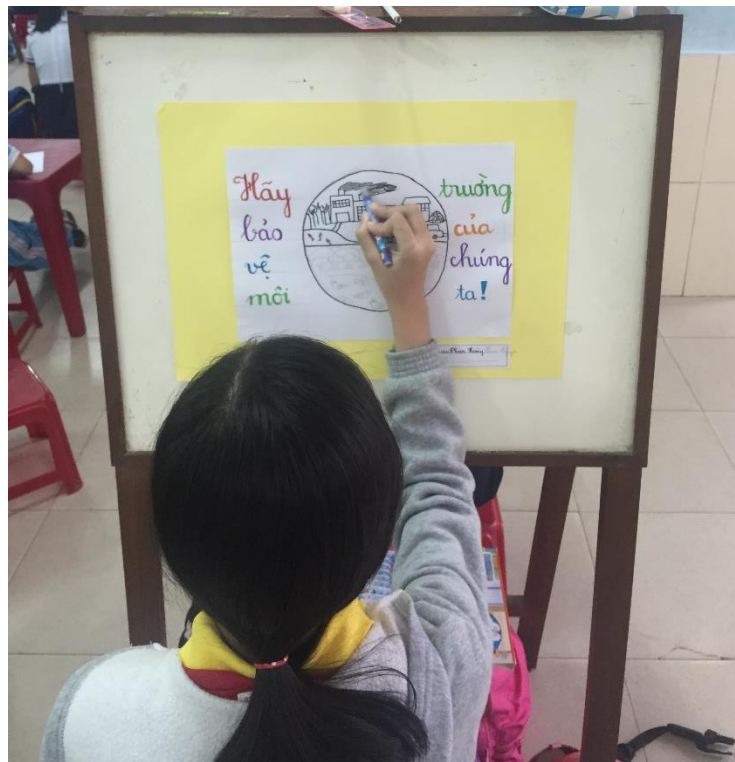
# Environmental Education in Vietnam: A Case Study at Le Loi Elementary School

Emily Heck  
Academic Director: Thanh Duong  
ISP Supporter: Vo Thi Thuy Dung

Oberlin College  
Environmental Studies

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## Abstract

The purpose of the research I conducted for this Independent Study Project was to get an in-depth understanding of how elementary school teachers and students think about the environment, environmental problems, and how to include environmental themes in education in Vietnam. I chose to focus on primary school-aged children, as they are a generation growing up in an era of global warming and daunting threats to the environment brought on by human activity. I conducted my research at Le Loi Elementary School in Hue, Vietnam, where I used a variety of research methods to learn from teachers and students including interviews, observations, and an art project. I used the context of Vietnam's history of colonialization, rapid and continuing development, and industrialization and modernization to learn about pollution and environmental degradation on both national and local scales. I also focused on the idea of environmental identity, or the ways in which people interact with and relate to the natural environment, to understand environmental conceptions.

My research provided me with a nuanced understanding of how cultural values are reflected in the ways children and adults think about and define local and global environments and environmental issues. An emphasis on cleanliness, picking up trash, planting trees and making beautiful green spaces was a common theme found in my observations and in the artwork created by the students. This reflects both on Vietnamese culture and the fact that Hue is located along the Perfume River which is a place with natural beauty but also obvious pollution. Additionally, surveys and interviews conducted with teachers showed concern for the environment and a desire to provide education about the environment in ways that are age and culturally appropriate for students. Institutionalized environmental education classes at the primary school level don't currently exist in any widespread frequency in Vietnam. However, the enthusiasm and interest from teachers and students in addition to more recent recognition of global climate change and the implementation of ways to combat it worldwide shed a positive light on the potential for more environmental education in Vietnam.

Keywords: environmental identity, environmental education, climate change

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## **Introduction**

## **Statement of Purpose**

I spent two and a half weeks in Hue, Vietnam conducting my research on environmental education and environmental identity at the primary school level at Le Loi Elementary School - considered one of the best primary schools in Hue. My reason for conducting research at that location was to gain a more in-depth understanding of how elementary school teachers and students think about the environment, environmental problems, and how to include environmental themes in education. I wanted to understand how both children and adults conceptualize environmental issues and to learn more about what sustainability means in the context of a currently rapidly developing country. I understand that that the results of this study are not representative of environmental conceptions all over Vietnam, however this project did provide me with an understanding of environmental identity among teachers and students in Hue at the primary school level.

## **Research Questions**

1. What are the main environmental issues being faced by Vietnam?  
What are the main environmental issues being faced by Hue?
2. How is environmental education included at the primary school level? Specifically, how are children taught about environmental issues (classroom-based or more experiential?) and how are environmental education classes fit into the school curriculum (integrated or separate?)
3. How do young students learn about concepts of the environment and environmental issues? Is learning about the environment in a school setting enough to inspire behavior change and raise a more environmentally-aware generation?

## **Background**

## **Overview of Le Loi School and Environmental Education**

Le Loi School is located on a busy street near the center of Hue. The school has a total of 1,664 students in grades one through five. The classrooms in the school are all built around a large, open courtyard with many trees and plants. This open, outdoor space is where children play and do their physical education classes. There are other sheltered, outdoor spaces where the students eat lunch and engage in other extracurricular activities. The physical campus of the school is incredibly clean and well-maintained. This is a reflection of the commitment expressed by the teachers of Le Loi School to make sure students clean up trash and pick up after themselves, a sentiment expressed to me often in my interactions with the staff. The school day is approximately eight hours long and students attend classes Monday through Friday. Primary education at the public school level is free, aside the cost of uniforms and school supplies.

During one of my initial visits to the school, I met with the Vice Principal, Ms. Thuy Dung, to get a general overview of Le Loi School. She had prepared a Power Point with many pictures and my translator, Khoa, helped translate the captions and her oral descriptions of what was happening in the pictures. Some pictures were of the students playing outside during one of their 20 minute recesses during the day. Other pictures showed students being rewarded in the “good penmanship competition”, the group of 40 or 50 students who receive scholarships annually, and various

students on field trips and cultural enrichment activities that the school believes are essential in bolstering the academic experience.

Following the presentation, Ms. Thuy Dung sat down with Khoa and me to discuss how environmental education operates in Le Loi School. She began by describing that there are two ways education regarding the environment happens in the elementary school. The first way is through “teaching and learning”. This approach means that teachers include themes about environmental conservation and protecting the environment in regular academic subjects, such as Vietnamese language, math, science, history, geography and civics. She then explained that environmental themes are addressed at three levels of “learning and teaching” in academic curriculums. The first, most involved and explicit level of teaching about the environment involves devoting an entire lesson to the teacher discussing the environment and how to protect it. The second level of inclusion is when the teacher devotes one part of the lesson to discussing the environment. Instead of talking about the environment for a whole class period, the teacher might use extra class time to bring up an environmental issue related to the subject matter of the day. The third level involves linking the environment to the lesson being taught. For example, teaching a science class about energy through the lens of emphasizing natural resources and the implications of their limited availability on earth.

Ms. Thuy Dung continued to explain the “learning and teaching” approach by showing me a set of seven books provided by the Vietnamese



government with titles such as “Education about the Environment at a Primary Level in Art Classes” and “Education about the Environment at a Primary Level in Social Studies Classes”. These books were written in 2009 as tools to help primary school teachers include environmental themes in various subjects. The books raise environmental topics and offer suggestions for how teachers can address that topic within the framework of each academic subject.. My translator, Hien, spent an hour looking through the books with me and translating certain sections and activities. These activities ranged from drawing pictures of animals in the jungle and talking about deforestation to a lesson about how to keep clothes, school supplies, the home, and green public spaces clean as a means of keeping the environment clean. The books all had a section in which they defined “environment problems”. This definition, translated from Vietnamese, was “big issues faced by the world and Vietnam, particularly. Learning how to protect the environment is an important part of sustainable development.”

After looking at the books, Ms. Thuy Dung moved on to describe the second way in which environmental education operates in Le Loi School, “learning through social activities” in the school. An example of this type of education is the Green Volunteers Club. This club works to pick up trash around the school, take care of the flowers and plants, and make sure the school is clean and presentable. She mentioned that each class has a team of students who are involved in the Green Volunteers Club. Other examples of out of class activities include “competitions to protect the environment”,

“making announcements for the school about how to protect the environment” and doing art projects about the environment and protecting it.

Ms. Thuy Dung brought up an essential point about the Vietnamese national education system for me to consider. She described how the purpose of national education in Vietnam is to produce well-rounded students who are able to excel in all educational content. At the elementary school level especially, learning about all subjects must be presented in fun and engaging ways so students will be interested in the subject matter and want to continue learning about it. Environmental education for young children has to be integrated into this larger framework and addressed in a manner consistent with the focus on producing well-rounded students.

### **Environmental Issues in Hue and Vietnam**

The City of Hue is located in the Perfume River Basin and built around the Perfume River which snakes through the city and divides it into segments with the main body of the river and its offshoots. The river is a source of drinking water, recreation, income, and livelihood for the people of Hue and surrounding areas. The Perfume River is one resource, specific to this part of Vietnam, directly affected by industrial pollution in the area that has arisen as a result of colonialization and the increasing development of the country over the past 100 years.

Today, Vietnam could still be considered a predominantly agriculture-based and rural nation. It is a country in which “food production and

livelihood security depends” directly on the sustainability of agriculture systems. (Adger, Kelly and Nguyen, 2003). This is important to keep in mind when considering the many environmental issues being faced by Vietnam and how climate change and environmental concerns arising from climate change are not just restricted to the environment. They are also human issues with serious implications for the future existence of the people in Vietnam. Different patterns in rainfall and flooding as a result of climate change have made agricultural production much less reliable. The awareness that Vietnam is acutely susceptible to environmental disasters that threaten the livelihoods and security of people combined with “land-use changes through urban, air and water pollution” has prompted the Vietnamese government to develop some form of regulation in its development plans (Shaw, 2006). Various plans that combine poverty reduction and highlight the important link between development and sustainability like Vietnam’s Climate Change Strategy (2002) and Vietnam’s National Strategy for Environmental Protection (2000) set a preliminary framework for Vietnam to develop in a sustainable way given the impact of climate change. Additionally, the Vietnamese government signed the Kyoto Protocol in 2002 that demonstrated a commitment to pollution reduction as a part of the global community. However, there are still environmental issues related to climate change and continued development Vietnam will have to address in the future that may be more severe or complex than existing legislation or efforts may be able to handle (Shaw, 2006). Because the

concept of sustainability is a relatively new idea in comparison to the history of development, it adds an entire set of issues and obstacles for currently developing nations like Vietnam to address. The global recognition of the threats of climate change and environmental degradation require these nations to consider environmental impacts and to weigh potential gains relative to losses as a result of different forms of development. This will be especially important for countries like Vietnam to consider given the recent developments calling for a global reduction in greenhouse gas emissions from the Paris Climate Summit. This will likely have a large impact on the course of development and larger shifts towards implementing sustainable green production methods and technology. (Davenport, 2015).

### **Environmental Identity**

The concept of environmental identity, in a literal sense, refers to how people interact with and conceptualize the natural environment. Much of this identity, especially for children in urban areas in developing and industrializing countries, is shaped around the reality of environmental degradation. Issues like “air and water pollution, contamination of water and soil, overuse of exhaustible resources, endangerment of species, and lack of green areas or nature reserves” contribute to the ways children today see themselves within their environments (Kals and Ittner, 2003). There are a number of other factors that shape identity in children, including the values of

parents or caregivers and the cultures in which they are raised. Many of these values and lifestyles in modern society promote unsustainable ways of living and high levels of consumption (Crompton and Kasser, 2009). This is also a product of Western influence in Eastern countries like Vietnam, where values produced by capitalism oftentimes conflict with what are considered more traditional Vietnamese values. In other words, the generation of young people growing up in Vietnam's globalized present are actively experiencing the contrast between a culture built on a history of communalism and socialism and a future geared towards individualism and capitalism (Nilan, 1999). This has implications for how youth of today interact with the environment and place value on conservation of resources.

## **Methodology**

I conducted my research in Le Loi Elementary School, using several different ways of gathering data. Working within the time and scheduling limitations of teachers, administrators, and students was a factor that I took into consideration when developing my approach to data collection at the school.

The school welcomed me and helped me to construct a schedule of meeting times. I went to the school a total of six times to conduct the various components of my research. I was assisted by local student volunteers who helped translate communications between myself and the staff and teachers in the school as well as with the students. My main contact at the school was Vice Principal Ms. Thuy Dung. Each visit to the school involved various activities, including a presentation and interview with the vice principal, distributing surveys I wrote and translated into Vietnamese with the help of a student volunteer, observing an art class and an extracurricular activity where students drew pictures of the environment, conducting my own activity with 19 students in third and fourth grade, and interviews with three teachers regarding environmental issues and education.

Throughout the two weeks I was at Le Loi School, I wrote up five reports that I provided to the school giving detailed accounts of the work I was doing and how my research was benefitting from my experiences at the school. This was a helpful way of being open with the school about my research and being able to personally reflect in an organized manner while my research was still taking place.

## **Limitations**

There were a number of limitations and obstacles in my research. One limitation was the language barrier. All of my interactions with staff at Le Loi School were done through a student volunteer translator. As is the nature with having a third party translating language, our interactions were sometimes complicated by miscommunication or difficulty in translating specific ideas from Vietnamese to English or vice versa. For example, there were a few instances in which I misunderstood the translated directions provided by the vice principal regarding what to include in my written reports of the progress of my research. This meant I had to rewrite documents on a few different occasions. Another limitation the language barrier presented was in the effective communication of somewhat complicated concepts. It would occasionally take two or three attempts at rephrasing an idea like “source of drinking water” to obtain an accurate translation into Vietnamese.

Another limitation was time, both in terms of the entire length of my research period and the schedule of the school day. I conducted my research over the course of two weeks. In my prior experience working in schools, I have found that it generally takes about a month or longer to establish solid relationships with staff and students in a school. Although the teachers and staff were incredibly welcoming and open to my presence in the school, I felt

like I was able to form mainly surface level relationships due to my limited amount of time and language barriers.

One other major limitation I grappled with was reconciling my Western conception of environmental issues and education with Vietnamese culture and the realities of a developing country. As an environmental studies student from the U.S., I came into this research project with some preconceived notions of what environmental education in schools should look like and how these issues should be taught at the elementary school level. However, throughout the semester and specifically during my time in Hue, I learned about the importance of suspending these premeditated ideas and opening my mind to the cultural context and the history of Vietnam and Hue. This “lesson learned” is important when thinking about environmental issues in the context of each different countries and communities.

## **Survey Methods**

I constructed my survey to gauge environmental identity of teachers at Le Loi School and their interest in environmental education. I divided the survey into three sections: a brief section on personal identity (not including name so anonymity could be maintained), environmental identity, and environmental education. The last part of the survey included a section asking whether they would be willing to be interviewed for my research. The survey included questions asking teachers to rate their feelings or knowledge about environmental issues on a five-point scale a few yes or no questions



and two writing questions about sources of water and electricity in Hue. I wrote out my surveys in English and translated them into Vietnamese with the help of one of the local student volunteers.

I handed out 30 surveys to teachers on a Monday morning and collected them on a Friday afternoon. This meant that the teachers filled out the surveys on their own time. I received 21 surveys back. In retrospect, I think it would have been better to have asked the teachers to fill out the surveys while I was there. I believe this would have produced a higher response rate and could have gotten slightly more accurate responses in the section asking about sources of water and electricity in Hue. I was hoping to receive responses based on prior knowledge regarding sources of electricity and water in Hue as opposed to answers found on the Internet. Because I did not include this note when giving the surveys to the teachers initially, it is possible I received skewed results in this section. A copy of the survey (in English and Vietnamese) can be found in Appendix A.

### **Interview Methods**

The interviews with teachers were conducted at the end of the school day on my last afternoon at Le Loi School. I met in Ms. Thuy Dung's office with my translator Hien and three teachers - Mr. Quang Khen, Ms. Thanh Tam, and Ms. Minh Ngoc. The teachers had a limited amount of time so we discussed the questions as a group. These interviews provided me with interesting insight into how teachers felt they incorporate environmental

concerns and issues in their classes. The restricted amount of time was a limitation in the interviews, as one of the teachers had to leave early before we had discussed all of the questions. A copy of the interview questions (in English and Vietnamese) can be found in Appendix B.

### **Class Observations and Art Project Methods**

My class observations and art project with the students were major parts of my research. The class observations (I was able to watch a drawing class and an environmental drawing activity) allowed me to take passive role in the classroom setting and take notes on teacher and student interaction and behavior. I felt that this gave me valuable insight into how classroom dynamics play out in a setting not directly influenced by my presence.

The art project gave me an opportunity to shift from an outside observer to an active participant and leader of an activity. I decided to conduct this art project on the last day of my research at the school so the students would be more comfortable with my presence and the idea of me as an authority figure offering classroom directions. I structured this activity with the students to include an initial discussion, structured time to draw, and post-activity discussion. The activity lasted a total of about one hour. The lesson plan for my activity can be found in Appendix C.

## **Research Findings**

## Quantitative Research Findings for Survey

I recorded the responses for each question from the 21 surveys I received in the tables below.

### Environmental Identity

1. I feel connected to my natural environment: (1 is not at all, 5 is very much)

Scale 1-5	1	2	3	4	5
# of participant responses	1	0	1	9	10

The average rating of feeling connection to natural environment was **4.286**.

2. I am informed about and care about environmental issues globally: (1 is not at all, 5 is very much)

Scale 1-5	1	2	3	4	5
# of participant responses	2	0	3	7	9

The average rating of feeling informed and caring about environmental issues globally was **4.000**.

3. I am informed and care about environmental issues in Hue: (1 is not at all, 5 is very much)

Scale 1-5	1	2	3	4	5
# of participant responses	1	0	3	6	11

The average rating of feeling informed and caring about environmental issues in Hue was **4.238**.

4. I am familiar with “global warming” and its impacts on the environment: (1 is not at all, 5 is very much)

<b>Scale 1-5</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
# of participant responses	1	1	4	8	7

The average rating of feeling familiar with “global warming” and its impacts on the environment was **3.905**.

5. I know the source drinking water in my community (river, lake, ocean, etc.): Please circle yes or no.

<b>Yes</b>	<b>No</b>
19	2

6. I know the source of electricity in my community (Coal, natural gas, wind power, etc.) Please circle yes or no.

<b>Yes</b>	<b>No</b>
17	4

## Environmental Education

1. I think that it is important for children to be connected to their environment: ( 1 is not at all, 5 is very much)

<b>Scale 1-5</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
# of participant responses	0	0	1	2	18

The average rating of feeling it is important for children to be connected to their environment was **4.810**.

2. I think that it is important for children to be educated about environmental issues and problems: ( 1 is not at all, 5 is very much)

<b>Scale 1-5</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
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# of participant responses	0	0	1	2	18
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The average rating of feeling that it is important for children to be educated about environmental issues and problems was **4.810**.

3. I try to teach about the environment in my classroom: Please circle yes or no.

Yes	No
21	0

4. I think that having a class where students learn about environmental issues and how to solve them is a good idea. Please circle yes or no.

Yes	No
21	0

If yes, would you want to teach a class like this?

Yes	No	No Response
18	1	2

## Interviews

In this section, I have included the transcripts from the interviews with the three teachers.

**1. Throughout your life, how has your relationship with the environment developed? Has the more recent rise in awareness of things like global warming impacted how you think about the environment?**

**Mr. Quang Khen:** Global warming awareness has risen but is a large issue largely out of individual's control. However, I believe that the next generation is smart and flexible enough to tackle issues caused by global warming.

**Ms. Thanh Tam:** I care a lot about global warming, and believe there are many difficult weather conditions and lots of water pollution as a result of

pollution from factories. The poor quality of water affects the quality of food which makes it unhealthy for people to eat and drink.

**Ms. Minh Ngoc:** Global warming has a significant impact on the whole world. The temperature is increasing. I suffer from hypertension which is bad for my health.

**2. What are some of the main environmental issues or problems you see happening in Hue or your local community?**

**Mr. Quang Khen:** There are many beautiful places in Hue, but it is often difficult for the local people to enjoy it.

**Ms. Thanh Tam:** I care very much about the local community. I especially want to focus on water. When developers build and develop, especially near the river, they do not focus on waste that goes into the water and pollutes the river.

**Ms. Minh Ngoc:** There are not four distinct seasons in a year here, but oftentimes it feels like there are four different seasons in a day with rain and sun and everything in between. The rate of students who have fevers and sickness is increasing. However, I live in an open, green area so I am not affected much personally by pollution.

**3. As a teacher, what do you think are the best ways to help young children to care about their environment and try to shape their behavior in order to address environmental problems?**

**Mr. Quang Khen:** I hope that the education system will create a class to educate students about the environment and give them solutions to protect it. There is too much talk about things and theory in education and we must take more action. Teachers can guide students to pick up garbage and be good role models.

**Ms. Thanh Tam:** From grade one, I recommend students to keep themselves, their houses and their communities clean.

**Ms. Minh Ngoc:** The behavior of the students is the most important thing. The environment is a global issue. Teachers should serve as role models. I personally pick up trash, keep personal hygiene clean, and we clean the classroom every two weeks.

**4. Do you ever use the handbooks provided to the school from the government regarding how to teach about education for the environment at the primary school level? Do you use any other teaching materials or strategies to help children learn about the environment in your classes?**

**Ms. Thanh Tam:** Yes, I use the handbooks. I try to integrate environmental education into the way I teach.

**Ms. Minh Ngoc:** I talk about environmental issues in my class. After crafts time, I make sure students clean up after themselves and keep the room tidy.

**5. Since you began teaching, have you seen any change in awareness of your students regarding environmental issues and how to lead environmentally-friendly lifestyles?**

**Ms. Thanh Tam:** Students in primary school like to play outside quite a bit and can be very forgetful. I think that using engaging extra-curricular activities is a good way to help them learn to protect the environment.

**Ms. Minh Ngoc:** There is a big difference. In the past, the environment was cleaner and safer. Now that the economy is increasing, students and their parents have more money to buy fast food and they throw their trash in inappropriate places so the environment is terrible.

### **Observations of Art Class and Environmental Drawing Activity**

The art class I observed was for second graders. I was positioned in the back of the classroom with my translator. The topic of the class was coloring patterns symmetrically. The students sat quietly and were incredibly receptive to the teacher's questions and instructions. When it was time to color, the students sat quietly in their seats and worked quickly to color in their pictures. The precision the students used in their coloring and discipline in the classroom setting was indicative of their respect for the authority of the teacher and the value placed on being neat and orderly. The classroom setting differed greatly from the outdoor play setting, during which the children behaved as most elementary school aged students all over the world behave - running around, playing, laughing, and physically interacting with one another.

The extracurricular activity I observed involved about 25 students in fourth and fifth grade and was taught by an art teacher at Le Loi School. The activity took place in an outdoor, covered area beside the courtyard in the middle of the school's campus. I had a translator with me to translate Vietnamese into English. The teacher started the activity by asking the students to define what they believed to be "the environment". The student responses included "something close to nature", "animals", and "water and air". She then asked the students what they thought they should draw and they suggested answers including "endangered animals in the jungle", "stopping hunters" and "picking up trash". The art teacher then described how the deforestation of jungles can lead to floods in residential areas and then asked the students what happens when pollution from factories enters rivers. They responded by telling her that "fish die" and "people cannot drink the water". She then introduced the drawing activity by telling the students to creatively draw beautiful parts of nature as well or pictures that depict the negative impact of environmental degradation or pollution. The students drew quietly for about an hour while the teacher and I walked around observing the work of the students. The environmental issues the students chose to depict ranged greatly. Pictures included children sweeping up a classroom, giraffes in the jungle, and people scuba diving and cleaning up trash in the water. In one drawing, the student divided the paper with a line down the middle. On one side he drew a river with a sun and trees and a happy face. On the other side of the paper was a factory with pollution coming out and a devil's face.



He described the picture by saying that keeping the earth clean will keep people happy, but polluting it further will cause things to die or burn.

### **Observations of Environmental Identity Drawing Activity**

I wanted to conduct an art project with the students to get an understanding of how they conceptualize environmental issues in their own community and what they feel they can do, as young people, to act pro-environmentally. I conducted the activity with 19 third and fourth grade students from Le Loi School. My translator, Hien, translated for both the students and me in our discussion and for the instructions for the activity. The activity was held in the sheltered outdoor patio where the students usually eat lunch. At the beginning of the activity, I asked the students what they thought were some environmental problems in their own community. Students answered with issues such as “too much garbage on the ground” and “pollution in the Perfume River”. I then asked what the students felt they could do in their own lives, at their age, to help make their community a better, cleaner and healthier place. They answered with things such as “pick up garbage” and “plant trees and flowers”. I offered some more examples, such as turning off lights to save electricity, not wasting water, using reusable cups and bags instead of plastic, and walking places instead of using motorbikes or cars. After each example I offered, I asked whether the students felt like they could do those in their everyday lives. The students responded positively to all the methods I offered except walking instead of

motor biking, as they said their parents usually are in control of how they get to and from school and some lived too far from school to walk.

After our discussion, I gave the students around 45 minutes to draw a picture of themselves in their environment engaging in an activity that they felt they could feasibly do to help make the environment a better place. I explained that their environment could be any community they feel connected to - their home, Le Loi School, the city of Hue, etc. I walked around with Hien while the students were drawing, occasionally asking what a word in Vietnamese meant or if they would explain what was happening in a part of their picture. After I collected all of their drawings, we met again to have a quick post-activity discussion. Many students did not get to finish their drawings completely because of the careful detail they all added. I asked several students to share what they had drawn and many of them described how they had made pictures of themselves and friends picking up trash or planting trees. A few students focused on the trash in the Perfume River, and people swimming or in boats picking up the trash. One student drew a picture of a boy leaving the water running and a girl scolding him for wasting water. I then explained the importance of making change at a community level and in your own life in order to start addressing the big environmental issues in the world. I asked the students what they liked best about living in Hue. A few said that they liked the Perfume River and others said they liked the Imperial City. I asked the students to do their best to commit to make change to help

the environment in Hue so that the places and things they love the most about Hue can stay clean and so people can stay healthy to enjoy them.

**Examples of Students Drawings:**



Figure 1: "Let's Join Together to Protect the Environment"



Figure 2: "Picking up Trash in the Perfume River"



Figure 3: "Scuba Diving in the Perfume River and Cleaning Up Litter"

## **Discussion of Common Themes**

In all of my methods of gathering data, it was apparent that both the teachers and students of Le Loi School were interested in the environment and willing to offer their opinions and thoughts on environmental issues and solutions. Most of these themes and solutions were focused on planting trees, picking up trash, and maintaining cleanliness and order in all areas of life. This last point was a particularly interesting theme to me, as it connects the value placed on keeping oneself and the immediate surroundings clean to the larger environment and as a means of combating pollution and environmental degradation. The notion of feeling somewhat helpless or unable to commit to actions on a personal level to make substantial global change seems to be a feeling shared by people all over the world. For this reason, the focus on cleanliness in one's own behavior, community and immediate surroundings is a logical reaction. This equating of "green" environmental behavior with "keeping clean" does not necessarily address the need for a shift in human behavior away from wasting energy and mass consumption. However, it does show one way of addressing the issue in a manageable way that makes individuals feel like they are helping the environment.

Another theme that presented itself was the nature of the pollution teachers and students discussed and drew in pictures. Although some teachers mentioned industrial pollution and a couple of students drew oil refineries or factories with smoke coming out of the chimneys, the bulk of

environmental pollution was in the form of trash and litter on the ground outside and in the river. This is likely because litter that people see on the streets every day is one of the most obvious forms of pollution, and picking up a cup on the ground and throwing it away is a relatively easy task. Additionally, children at the primary school level are educated to a degree about environmental issues like industrial pollution but are not at an age where it is possible to understand the complexities of attempting to decrease industrial pollution.

Many students and teachers mentioned their connection to the Perfume River in Hue. The Perfume River is widely recognized as a source of water and livelihood but is also a key place where environmental degradation is most apparent. This body of water is important to the culture and sense of place of people in Hue. The ways it is negatively affected by people littering and factories leaking chemicals into it seems to be an important part of environmental identity for people in Hue.

## **Conclusion**

Connecting my research and findings back to a broader context allowed for me to see how conceptions of the environment and environmental issues are situated both in the education system and in culture. There are some key differences in the goals and realities of people living in a “developing country” versus some of the goals and realities of people living in a “developed country”. Understanding this point alone helped me see that the ways people are attempting to combat climate change and environmental degradation in places like the United States cannot always be applied to Vietnam. For example, applying the idea of “reducing and recycling” in a country like Vietnam where there is not an official recycling system is not a productive way to implement more environmentally-conscious behavior. In a “developed country” environmental regulation focuses largely on reducing pollution in existing industry. In a “developing country” however, the implementation and building of sustainable industry is the focus.

The idea of cultural awareness and recognition of context can be applied to education as well. The goal of primary education in Vietnam is to facilitate development of well-rounded learners in the basic academic subjects taught in school. Although teachers and students at Le Loi School seemed aware of environmental issues to at least some extent, they are still operating within the framework of the goals of the education system. This

means that the restructuring of the curriculum to include a substantially increased focus on environmental issues, or addition of a class devoted solely to learning about environmental issues, would likely have to be the result of a national policy change. Specifically, the definition of a “well-rounded student” would need to be adapted to include the idea of a student actively engaged in environmental issues and protection. Additionally, an affective curriculum addressing environmental issues may build upon the communalistic cultural identity of Vietnam. Incorporating this foundation may be a helpful way to bridge between Vietnam’s history and the sustainable development of its future.

That being said, with the increase in global recognition of climate change and call for all countries to adapt more proactive ways of combatting it, it is likely that education systems worldwide will begin adapting plans to integrate environmental education more rigorously. As stated earlier in my paper, the recent Paris Climate Summit has called upon both developing and developed countries to make significant strides to decrease greenhouse gas emissions and implement sustainable forms of development. This makes me hopeful for the more official implementation of environmental education programs in Vietnam to add to the actions students and teachers are already taking to make sure the environment in Hue and the country of Vietnam stays clean, healthy, and safe to live and learn in.



## **Appendix**

### **Appendix A1 – Environmental Issues and Identity Survey in English**

Environmental Issues and Identity Survey  
Le Loi School  
Emily Heck, [heck@oberlin.edu](mailto:heck@oberlin.edu)  
SIT Study Abroad ISP Program

#### **Introduction:**

Hello staff of Le Loi School, my name is Emily Heck and I am a student from the United States studying abroad in Vietnam this semester. I am living in Huế for the final month of the semester and I will be conducting research at Le Loi School.

#### **Purpose of Study:**

The purpose of this study is to get a more in-depth understanding of how elementary school teachers and students think about the environment, environmental problems, and how to include environmental themes in education. I understand that the results of this study will not be representative of environmental conceptions all over Vietnam, but I think it will give me a better understanding of environmental identity among teachers and students in Hue at the primary school level. This survey is for teachers at Le Loi School and will help me understand to what capacity the environment is included in academic curriculums.

#### **Anonymity and Privacy:**

Thank you for taking the time to participate in my study regarding environmental education and knowledge surrounding environmental issues. Filling out this survey is optional, and you may choose to exit the survey at any time. The results of this survey will be shared only with the SIT Study Abroad program and with the Environmental Studies department at my university in the United States. Please answer all questions honestly and to the best of your ability. Thank you for your participation in my study.

#### **Part 1: Self Identification**

Please provide answers most suitable to your identity.

Gender:      Male                      Female                      Other: \_\_\_\_\_

Age: \_\_\_\_\_

Grade level of students:      1<sup>st</sup>                      2<sup>nd</sup>                      3<sup>rd</sup>                      4<sup>th</sup>  
5<sup>th</sup>

What subject or subjects do you teach?

\_\_\_\_\_

How many years have you been teaching?

\_\_\_\_\_

## **Part II: Environmental Identity**

Please circle the number that is most appropriate to your experiences:

1. I feel connected to the natural environment: (1 is not at all, 5 is very much)

(not at all)      1                      2                      3                      4  
5 (very much)

2. I am informed about and care about environmental issues globally: (1 is not at all, 5 is very much)

(not at all)      1                      2                      3                      4  
5 (very much)

3. I am informed and care about environmental issues in Hue: (1 is not at all, 5 is very much)

(not at all)      1                      2                      3                      4  
5 (very much)

4. I am familiar with “global warming” and its impacts on the environment: (1 is not at all, 5 is very much)

(not at all)      1                      2                      3                      4  
5 (very much)

5. I know the source drinking water in my community (river, lake, ocean, etc.): Please circle yes or no.

Yes      No

If yes, what body of water does drinking water come from in Hue?

\_\_\_\_\_

6. I know the source of electricity in my community (Coal, natural gas, wind power, etc.) Please circle yes or no.

Yes              No

If yes, how is electricity sourced in Hue?

\_\_\_\_\_

### **Part III: Environmental Education**

Please circle the number that is most appropriate to your experiences.

1. I think that it is important for children to be connected to their environment: ( 1 is not at all, 5 is very much)

(not at all)      1                      2                      3                      4  
5 (very much)

2. I think that it is important for children to be educated about environmental issues and problems: ( 1 is not at all, 5 is very much)

(not at all)      1                      2                      3                      4  
5 (very much)

3. I try to teach about the environment in my classroom: Please circle yes or no.

Yes

No

4. I think that having a class where students learn about environmental issues and how to solve them is a good idea. Please circle yes or no.

Yes

No

If yes, would you want to teach a class like this? Yes No

#### **Part IV: Interview**

I am conducting interviews with staff at Le Loi School to learn more about environmental education at the primary school level. If you would be willing to do a short 15 minute interview with me please fill out the following. I will be doing interviews with staff at Le Loi School from November 30<sup>th</sup> – December 2<sup>nd</sup>.

Name:\_\_\_\_\_

Email or phone number:\_\_\_\_\_

.

Classroom number:\_\_\_\_\_

What time during the day are you available for a 15 minute interview?\_\_\_\_\_

## **Appendix A2 – Environmental Issues and Identity Survey in Vietnamese**

Nghiên cứu các vấn đề về Môi trường  
Trường Tiểu học Lê Lợi  
Emily Heck, [heck@oberlin.edu](mailto:heck@oberlin.edu)  
SIT Study Abroad ISP Program

### **Giới thiệu:**

Kính gửi: - Ban Giám Hiệu trường Tiểu học Lê Lợi và các Giáo viên của Nhà trường.

Tôi tên là Emily Heck, tôi là sinh viên đến từ Hoa Kỳ. Tôi đến Việt Nam học kì này để tiến hành đề tài nghiên cứu về Môi trường. Tôi được biết, trường Tiểu học Lê Lợi Huế là một trong những ngôi trường chất lượng cao và đạt được rất nhiều thành tích nổi bật mang tầm cỡ quốc gia nói chung và trên địa bàn tỉnh nói riêng. Vì vậy, tôi đã quyết định tiến hành đề tài nghiên cứu của mình ở trường Tiểu học Lê Lợi Huế.

### **Mục đích nghiên cứu:**

Mục đích của nghiên cứu này là để tìm hiểu sâu hơn về cách các giáo viên và học sinh tiểu học suy nghĩ như thế nào về các vấn đề liên quan đến môi trường, cũng như cách đưa các chủ đề về môi trường vào giáo dục. Kết quả nghiên cứu này sẽ giúp tôi có một cách nhìn tổng quát hơn về sự nhìn nhận của các giáo viên và học sinh ở bậc tiểu học về các vấn đề của môi trường. Hơn thế nữa, từ các kết quả đó, tôi có thể hiểu được những khía cạnh nào của môi trường nên được đưa vào chương trình giảng dạy học thuật ở trường. Bài khảo sát này được thiết kế riêng cho Quý thầy cô của trường tiểu học Lê Lợi Huế.

### **Sự bảo mật và quyền riêng tư:**

Tôi xin chân thành cảm ơn quý thầy cô đã dành thời gian tiến hành bài khảo sát của tôi với chủ đề: “Giáo dục về môi trường và kiến thức về các vấn đề của môi trường”. Điền thông tin vào khảo sát này là không bắt buộc và quý thầy cô có thể kết thúc bài khảo sát ở bất cứ thời điểm nào. Kết quả sẽ chỉ được thông báo đến chương trình học tập ở nước ngoài SIT (School for International Training) và bộ môn Môi trường học tại trường Đại học của tôi ở Hoa Kỳ. Sự giúp đỡ của Quý thầy cô thông qua việc trả lời các câu hỏi của bài khảo sát sẽ giúp tôi rất nhiều trong quá trình nghiên cứu. Một lần nữa, tôi xin gửi đến Quý thầy cô lời cảm ơn chân thành nhất.

## Phần I: Giới thiệu bản thân

Xin vui lòng trả lời các câu hỏi sau:

Giới tính:      Nam                      Nữ                      Khác: \_\_\_\_\_

Tuổi: \_\_\_\_\_

Quý thầy cô đang dạy bậc học nào:      1<sup>st</sup>                      2<sup>nd</sup>                      3<sup>rd</sup>  
4<sup>th</sup>                      5<sup>th</sup>

Quý thầy cô đang giảng dạy (những) môn học nào?

\_\_\_\_\_

Quý thầy cô đã giảng dạy được bao nhiêu năm?

\_\_\_\_\_

## Phần II: Nhận thức về môi trường

Xin vui lòng khoanh tròn câu trả lời thích hợp nhất:

1. Tôi cảm thấy gắn kết với môi trường sống tự nhiên xung quanh tôi: (1: không chút nào cả, 5: rất gắn kết)

(không chút nào cả)      1                      2                      3                      4  
5 (rất gắn kết)

2. Tôi quan tâm đến các vấn đề liên quan đến môi trường trên toàn cầu: (1: không chút nào cả, 5: rất quan tâm)

(không chút nào cả)      1                      2                      3                      4  
5 (rất quan tâm)

3. Tôi quan tâm đến các vấn đề liên quan đến môi trường ở Huế: (1: không chút nào cả, 5: rất quan tâm)

(không chút nào cả)      1                      2                      3                      4  
5 (rất quan tâm)

4. Tôi hiểu rõ sự “nóng lên của Trái Đất” và những hệ lụy của nó đối với môi trường sống: (1: không hiểu chút nào cả, 5: hiểu rất rõ)

(không hiểu chút nào cả)      1                      2                      3                      4  
5 (hiểu rất rõ)

5. Tôi biết rõ nguồn nước uống ở nơi tôi đang sinh sống hằng ngày đến từ đâu (ví dụ: đại dương, sông, hồ, ao,...): Xin vui lòng khoanh tròn Có hoặc Không.

Có      Không

Nếu có, nguồn nước uống của người dân thành phố Huế đến từ đâu?

\_\_\_\_\_

6. Tôi biết rõ nguồn năng lượng dùng để sản xuất ra điện năng ở nơi tôi sinh sống (Than, khí tự nhiên, năng lượng từ gió, vv...). Xin vui lòng khoanh tròn Có hoặc Không.

Có      Không

Nếu có, điện năng của Huế được sản xuất từ nguồn nào?

\_\_\_\_\_

### Phần III: Giáo dục về môi trường

Xin vui lòng khoanh tròn câu trả lời thích hợp nhất:

1. Tôi nghĩ rằng việc học sinh được gắn kết với môi trường là rất quan trọng: (1: không quan trọng, 5: rất quan trọng)

(không quan trọng)      1                      2                      3                      4  
5 (rất quan trọng)

2. Tôi nghĩ rằng việc giáo dục cho học sinh về các vấn đề của môi trường là rất quan trọng: (1: không quan trọng, 5: rất quan trọng)

(không quan trọng)      1                      2                      3                      4  
5 (rất quan trọng)

3. Tôi đã và đang cố gắng dạy cho học sinh của mình các vấn đề về môi trường: Xin vui lòng khoanh tròn Có hoặc Không.

Có                      Không

4. Tôi nghĩ rằng có chúng ta nên có một lớp học nơi mà học sinh có thể tìm hiểu về các vấn đề của môi trường. Xin vui lòng khoanh tròn Có hoặc Không.

Có                      Không

Nếu có, Quý thầy cô có muốn trở thành giáo viên của lớp học đó không?

Có                      Không

#### **Phần IV: Phỏng vấn**

Tôi sẽ tiến hành các cuộc phỏng vấn ngắn trong vòng 15 phút với các Quý thầy cô ở trường tiểu học Lê Lợi Huế để tìm hiểu sâu hơn về cách giáo dục về môi trường ở cấp bậc tiểu học. Nếu Quý thầy cô có thể tiến hành cuộc phỏng vấn ngắn này, xin vui lòng điền thông tin vào các mục dưới đây. Thời gian phỏng vấn: từ 30/11/2015 – 2/12/2015.

Họ và tên: \_\_\_\_\_

Địa chỉ email hoặc số điện thoại: \_\_\_\_\_

Phòng học: \_\_\_\_\_

Thời gian nào trong ngày Quý thầy cô có thể tiến hành cuộc phỏng vấn này?  
\_\_\_\_\_



## **Appendix B1 – Interview Questions in English**

### **Interview Questions for Teachers:**

1. Throughout your life, how has your relationship with the environment developed? Has the more recent rise in awareness of things like global warming impacted how you think about the environment?
2. What are some of the main environmental issues or problems you see happening in Hue or your local community?
3. As a teacher, what do you think are the best ways to help young children to care about their environment and try to shape their behavior in order to address environment problems?
4. Do you ever use the handbooks provided to the school from the government regarding how to teach about education for the environment at the primary school level? Do you use any other teaching materials or strategies to help children learn about the environment in your classes?
5. Since you began teaching, have you seen any change in awareness of your students regarding environmental issues and how to lead environmentally-friendly lifestyles?

## **Appendix B2 – Interview Questions in Vietnamese**

### **Câu hỏi phỏng vấn cho Giáo viên:**

1. Trong suốt cuộc đời của Quý thầy cô, mối quan hệ của Quý thầy cô với môi trường đã được phát triển như thế nào? Những vấn đề hiện nay như “Sự nóng lên của Trái đất” có ảnh hưởng như thế nào đến suy nghĩ của Quý thầy cô về môi trường?
2. Có những vấn đề về môi trường nào đang diễn ra ở Huế hoặc nơi Quý thầy cô đang sinh sống?
3. Với tư cách là một giáo viên, những cách tốt nhất giúp các em học sinh quan tâm hơn về môi trường xung quanh và cố gắng xây dựng hành vi để giải quyết các vấn đề về môi trường là gì?
4. Quý thầy cô đã bao giờ sử dụng sách hướng dẫn cách giáo dục về môi trường cho các em học sinh bậc tiểu học được cung cấp bởi Chính phủ? Quý thầy cô có sử dụng những tài liệu và chiến lược giảng dạy khác để giúp học sinh tìm hiểu về môi trường trong lớp học?
5. Kể từ khi Quý thầy cô bắt đầu đi dạy, Quý thầy cô có nhận thấy sự thay đổi trong nhận thức của học sinh về các vấn đề của môi trường và cách để có một phong cách sống thân thiện với môi trường?

## **Appendix C – Environmental Identity Drawing Activity Lesson Plan**

### **Lesson Plan for Art Project with students:**

This project should take about one hour. I will have a translator with me to help me communicate with the students. I would like to have 25 – 30 students in grade levels 3 and 4.

**Materials needed:** Blank sheet of paper for me/translator to write on, coloring and writing utensils for the students to draw, paper to draw on.

### **Discussion before project:**

- I will start by asking the students what some of the environmental problems they know about in their community. We will write down a list of some of these problems.
- I will then ask the students what actions they can take to make their community a better and healthier place. We will write down a list of some of these problems. (Examples: pick up trash, use reusable bags and cups instead of plastic, turn off the lights when you leave a room to save electricity, walking or biking instead of using motorbike or car, etc.)

### **Art project:**

- I will ask the students to creatively draw themselves in what they consider their own environment (Hue, their home, Le Loi School, their neighborhood) doing something that makes the environment a better place. On the paper they must write what they are doing.

### **Discussion after project:**

- I will discuss how the world is a big place with lots of environmental problems. In order to start building a healthier world, we must start in our own communities. Visualizing the actions we can take in our daily lives and drawing them on paper is a good way to make a commitment to helping create a community built on sustainable practices.

## Appendix D – Additional Pictures of Student Artwork and Le Loi School



**Figure 1: Students drawing during Environmental Identity Drawing Activity, looking out on courtyard of Le Loi School**



**Figure 2: Students drawing during Environmental Drawing Activity**



**Figure 3: Drawing done by 4<sup>th</sup> grade student in Environmental Drawing Activity**

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